



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,125	09/12/2003	Gerd Moser	2058.226US1	9070

50400 7590 01/10/2008
SCHWEGMAN, LUNDBERG & WOESSNER/SAP
P.O. BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER

DAILEY, THOMAS J

ART UNIT	PAPER NUMBER
----------	--------------

2152

MAIL DATE	DELIVERY MODE
-----------	---------------

01/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/662,125	Applicant(s) MOSER ET AL.	
	Examiner Thomas J. Dailey	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/13/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-50 are pending.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
4. Claims 1 and 19 recites, "A system, comprising: a master data server...and an integration server." The servers, as recited, can be implemented as software alone; thereby making the claims functional descriptive material that is not tangibly embodied on a computer system or computer storage medium which is non-statutory.
5. Claims 2-18 are dependent on claim 1 and do not remedy the 35 U.S.C. 101 rejection presented above and are similarly rejected.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 44-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. Claim 44 recites, "master data associated with objects" (line 7). This limitation lacks antecedent basis; line 4, recites, "master data associated **with an object.**"

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-6, 8-11, 16, 19-23, 27-34, 40-48, and 50 rejected under 35 U.S.C. 102(b) as being anticipated by Bodamer et al (US Pat. 6,236,997), hereafter "Bodamer."

11. As to claim 1, Bodamer discloses a system, comprising:

a master data server, to maintain a master database storing master data objects (Fig. 3A, labels 208 (master data server) and 308 (master database)),

the master data server using master identifiers to identify the master data objects, the master database being accessible to clients (column 4, lines 60-65); and

an integration server (column 5, lines 22-26), in response to a request from a client to access master data identified by a client identifier, to map the client identifier to a master identifier, retrieve a master data object from the master database based on the master identifier, and map the master data object to a mapped data object based on a set of mapping rules associated with the client (column 7, lines 9-15, modules map database operations to a target foreign process; column 8, lines 28-46, gives an illustrative example).

12. As to claim 19, Bodamer discloses a system, comprising:

a master data server, to maintain a master database storing master data objects (Fig. 3A, labels 208 (master data server) and 308 (master database)), each object having a set of attributes (column 8, lines 9-17), the master database being accessible to clients, each client processing a subset of attributes of the master data objects (column 4, lines 60-65); and

an integration server (column 5, lines 22-26), in response to a request from any one of the clients to access a master data object, to retrieve the master data object from the master database and map the master data object to a mapped data object based on a set of mapping rules associated with the client so that the mapped data object contains the subset of attributes in a format that can be

processed by the client (column 7, lines 9-15, modules map database operations to a target foreign process; column 8, lines 28-46, gives an illustrative example).

13. As to claim 20, Bodamer discloses a method, comprising:

maintaining a master database at a data server, the master database containing master data objects, the master database accessible to clients (Fig. 3A, labels 208 (master data server) and 308 (master database), and column 4, lines 60-65);

receiving a request from a client to access master data, the request containing a client identifier (column 7, lines 9-17 and column 8, lines 28-32);

mapping the client identifier to a master identifier (column 7, lines 9-17 and column 8, lines 32-46);

retrieving a master data object based on the master identifier (column 7, lines 9-17 and column 8, lines 32-46);

mapping the master data object to a mapped data object based on a set of mapping rules associated with the client (column 8, lines 32-46); and

sending the mapped data object to the client (column 8, lines 41-46).

14. As to claim 28, Bodamer discloses a method for maintaining data comprising:

providing a master database having master data shared by at least two clients (Fig. 3A, and 308 (master database), and column 4, lines 60-65);

providing an interface for updating the master database (column 5, lines 22-26);

providing an interface for mapping subsets of the master data into mapped data having a format that is acceptable to each client (column 8, lines 9-21); and

providing a user interface for entering and displaying subsets of the master data (column 4, lines 19-23).

15. As to claim 44, Bodamer discloses a computer program product, tangibly stored on a machine-readable medium, for dynamic access of master data, comprising instructions operable to cause a programmable processor to:

associate master data with an object (column 5, lines 1-7, client updates a foreign database, i.e. an update is master data, the object any data the update contains);

send the master data to a master data server that stores master data associated with the object on a database (column 4, line 60-column 5, line 7, client updates a foreign database controlled by a foreign sever (master data server)); and

access master data associated with objects on the database by requesting that an integration server that communicates with the programmable processor and the master data server (column 4, line 60-column 5, line 7, and column 5, lines 22-26) map the data in the data server to a mapped data set that has a format conforming to rules defined by the programmable processor and send the

mapped data set to the programmable processor (column 7, lines 9-15, modules map database operations to a target foreign process; column 8, lines 28-46, gives an illustrative example).

16. As to claim 19, they are rejected by the same rationale set forth in claim 1's rejection.

17. As to claim 40, it is rejected by the same rationale set forth in claim 20's rejection.

18. As to claim 41, it is rejected by the same rationale set forth in claim 28's rejection.

19. As to claim 42, it is rejected by the same rationale set forth in claim 35's rejection.

20. As to claim 43, it is rejected by the same rationale set forth in claim 39's rejection.

21. As to claim 2, Bodamer discloses at least two clients use different client identifiers to identify a common master data object (column 8, lines 1-9 and column 5, lines 22-27).

22. As to claim 3, Bodamer discloses a mapping table to store information related to the mapping of the client identifiers to the master identifiers (column 8, lines 1-9).

23. As to claim 4, Bodamer discloses mapping table to store mapping rules associated with the clients (column 8, lines 1-9).

24. As to claims 5 and 27, Bodamer discloses the master data object has a plurality of attributes associated with characteristics of an entity represented by the master data object (column 8, lines 1-9), and mapping the master data object to the mapped data object comprises retrieving a subset of the attributes from the master data object and formatting the subset of attributes based on rules defined by the client (column 7, lines 9-15, modules map database operations to a target foreign process; column 8, lines 28-46, gives an illustrative example).

25. As to claims 6 and 33, Bodamer discloses the integration server dynamically maps the master data object in the master database to the mapped data object based on mapping rules defined by the client each time the client requests for the master data (column 7, lines 9-15) without replicating the master data object at a database local to the client (column 5, lines 1-7).

26. As to claims 8, 29, and 46, Bodamer discloses the integration server comprises an exchange interface receives data that are published by a first client, and routes the published data to a second client that requested the published data (column 5, lines 1-4, client updates foreign database, that database is available to other clients).

27. As to claim 9, Bodamer discloses the integration server maps the data published by the first client to master data based on a first set of mapping rules associated with the first client (column 5, lines 1-4, client updates data utilizing conversion module as discloses in column 8, lines 1-9), and maps the master data to mapped data that can be processed by the second client based on a second set of mapping rules associated with the second client (column 8, lines 1-9).

28. As to claims 10, 30, 32, and 47, Bodamer discloses the integration server comprises a content integrator that finds characteristics that at least two clients associate with an object (column 8, lines 1-9 and column 8, lines 28-46).

29. As to claims 11 and 48, Bodamer discloses the integration server comprises an adapter that receives communications from a client and extracts master data from the communications and forwards the extracted master data to the master data server (column 4, lines 60-65).

30. As to claim 16, Bodamer discloses the master data server provides processes to allow the clients to modify the master data (column 4, lines 50-56).

31. As to claim 21, Bodamer discloses receiving a request from the client to modify the master data object to create a modified master data object, and querying the other clients to verify that the modified master data object conforms to consistency rules defined by the other clients (column 8, lines 1-9 and column 8, lines 28-46).

32. As to claim 22, Bodamer discloses if a particular client does not respond to the query as to whether the modified master data object conforms to consistency rules defined by the particular client, placing the particular client on an exception list to indicate that the modified master data object has not been verified to conform with the set of consistency rules defined by the particular client (column 8, lines 1-9 and column 8, lines 28-46).

33. As to claim 23, Bodamer discloses after a predefined period of time or when the particular client attempts to access data in the database, performing another attempt to verify whether the modified master data object conforms to the consistency rules defined by the particular client (column 8, lines 1-9 and column 8, lines 28-46)..

34. As to claim 31, Bodamer discloses receiving updates of the characteristics for an object from either one of the first and second clients, and sending the updates to the other of the first and second clients (column 8, lines 1-9 and column 8, lines 28-46).

35. As to claim 34, Bodamer discloses receiving updates of the characteristics for an object from either one of the first and second clients, and sending the updates to the other of the first and second clients (column 8, lines 1-9 and column 8, lines 28-46)..

36. As to claim 45, Bodamer discloses the integration server communicates with the programmable processor and the master data server dynamically (column 4, lines 42-59).

37. As to claim 50, Bodamer discloses the programmable processor can modify the master data stored in the master data server (column 4, line 60-65).

38. Claims 39 rejected under 35 U.S.C. 102(b) as being anticipated by Mahajan et al (US Pat. 6,226,650), hereafter "Mahajan."

39. As to claim 39, Mahajan discloses a method comprising:

receiving a first set of communications from a first client (column 4, lines 9-14);

analyzing the first set of communications to find a set of characteristics that the first client associates with a data object used in the first set of communications (column 4, lines 15-23);

analyzing other communications received from clients to find additional sets of characteristics that clients associate with data objects that have the same characteristics as the first set of characteristics (column 4, lines 15-23);

placing the first client and clients who sent a set of characteristics that are the same as the first set of characteristics into a client group (column 4, lines 15-23, clients with the same data requirements will be in the same group in the sense they will have access to the exact same file groups); and

generating a data distribution path to allow updates of the set of characteristics to be sent to the client group (column 4, lines 26-29, server updates file groups, appropriate updates are distributed to their respective clients).

Claim Rejections - 35 USC § 103

40. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

41. Claims 7, 12-15, 17-18, 24-26, 35-38, and 49 are rejected under 35 U.S.C.

103(a) as being unpatentable over Bodamer in view of what was well known in the art at the time of the invention.

42. As to claim 35, Bodamer discloses a method for maintaining data, comprising:

receiving a first identifier used by a first client to identify a data object, and a request to delete the data object, the data object being stored in a database maintained by a data server, the database being accessible to the first client and a second client (column 4, line 60-column 5, line 7, various database operations can be performed by client, further varying types of clients exists in the system as discloses in column 7, lines 10-17);

mapping the first identifier to a second identifier used by the second client to identify the data object (column 5, lines 22-27, a client is able to manipulate data on a non-native database server, i.e. varying types of clients can access the foreign data);

mapping the first identifier to a third identifier used by the data server to identify the data object (column 5, lines 22-27, the non-native database has its own command and file structure to manipulate the data).

But, Bodamer does not disclose querying the second client based on the second identifier to determine whether the second client is using the data object

and if the second client is not using the data object, deleting the data object from the database based on the third identifier.

However, preventing the deletion of in use item by a first client when a second client is using the item was a well known and expected practice in the art at the time of the invention. Therefore, Official Notice is taken (see MPEP 2144.03 Reliance on "Well Known" Prior Art) that one of ordinary skill in the art would view it as obvious to query an object to see if it is use by another client before deletion of that item in order to prevent errors occurring due to missing data.

43. As to claim 24, it is rejected by the same rationale set forth in claim 35's rejection.

44. As to claims 7 and 25, Bodamer does not explicitly disclose the integration server comprises a cache to store master data objects that are requested by clients, and to provide stored master data objects to clients when the integration server receives requests that are identical to previous requests for access to the master data objects. However, the use of caches was a well known and expected practice in the art at the time of the invention in order to reduce the time required to fetch data. Therefore, Official Notice is taken (see MPEP 2144.03 Reliance on "Well Known" Prior Art) that one of ordinary skill in the art at the time of the

invention would view it as an obvious modification to include a cache in Bodamer's system in order to reduce the time required to fetch data when an object receives multiple requests.

45. As to claims 12-15, 26, and 49, Bodamer does not disclose client authorization checks being performed at the master data server or the client. However, authorization being performed before data access or data modification was a well known and expected practice in the art at the time of the invention. Therefore, Official Notice is taken (see MPEP 2144.03 Reliance on "Well Known" Prior Art) that one of ordinary skill in the art at the time of the invention would view it as an obvious modification to include known client authorization practices in order to maintain the security of the database system and prevent unauthorized access and modification of data.

46. As to claim 17-18, Bodamer discloses a portion of the master data objects are associated with products or business partners. However, databases storing information related to products or business partners was a known use for databases to one of ordinary skill in the art at the time of the invention. Therefore, Official Notice is taken (see MPEP 2144.03 Reliance on "Well Known" Prior Art) that one of ordinary skill in the art at the time of the invention would view it as an obvious modification use Bodamer's databases to store data

relating to products and business partners, as that would make the system useful to a broad range of businesses.

47. As to claim 36-37, determining whether there is any reference to the data object in processes running on the second client and whether there is any reference to the data object in data buffers of the second client and querying the second client to determine whether the second client objects to deletion of the data object, and preventing deletion of the data object if the second client objects are well known and expected practices in the art at the time of the invention. Therefore, Official Notice is taken (see MPEP 2144.03 Reliance on "Well Known" Prior Art) that one of ordinary skill in the art would view it as obvious to query an object to see if it is use by another client before deletion of that item in order to prevent errors occurring due to missing data.

48. As to claim 38, Bodamer does not explicitly disclose the data object has a plurality of attributes, the first client configured to access a first subset of the attributes, the second client configured to access a second subset of the attributes, the second subset being different from the first subset. However, one of ordinary skill in the art would view it as obvious to include data segregation among objects, i.e. prevent one client from accesses another clients relevant data. Therefore, Official Notice is taken (see MPEP 2144.03 Reliance on "Well Known" Prior Art) that one of ordinary skill in the art would view it as obvious to


use a known practice to ensure only clients have access to only the data they need.

Conclusion

49. For additional prior art made of record and not relied upon and considered pertinent to the applicant's disclosure see attached Notice of References Cited, Form PT0-892.
50. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.
51. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

52. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


TJD


BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER

1/7/8